

Overview



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Special Issue on Advanced Technologies for Automotive Devices for the Future of Mobility

The auto industry is facing a paradigm shift involving autonomous driving and motorization.

Autonomous driving is being developed to improve convenience and reduce the number of casualties in traffic accidents. Systems that use cameras and onboard sensors such as radar to recognize the situation around automobiles and assist driving have been spreading; these include braking systems to reduce collision damage and systems to assist lane-keeping. Mitsubishi Electric Corporation provides advanced driving support by combining such self-sensing autonomous driving technologies with infrastructure-linked traveling technologies, using signals from quasi-zenith satellite systems and highly accurate maps.

CO₂ emissions from vehicles are being reduced to help curb global warming, since CO₂ emissions from automobiles account for 20% of total emissions. Various countries, particularly in Europe, have been tightening emissions controls and penalties. This is boosting the use of hybrid vehicles in which the engine is combined with electric power, as well as all-electric vehicles. Mitsubishi Electric has been contributing to this trend by supplying on-board power semiconductor devices, applying them to power electronics, downsizing drive systems that include motors, and improving their efficiency.

This special issue introduces our technologies and related new products.